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SEPTEMBER 1965



# AGRICULTURAL MARKETING



MORE MEAT GRADED AT LESS COST--Page 12





Volume 10, Number 9

## Contents

September 1965

The Forces for Change in Livestock Marketing	3
U.S. Wheat — A Step Forward	4
Protecting Your Rights Under PACA	5
They Like the Acceptance Service	6
The Seed Masters	8
Expanding the Market for School Lunch Food	10
What You Should Know About Poultry Labeling	11
Consumer and Marketing Briefs	12
Matching Funds in Action	14
Research for Better Quality Meat	16

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### Cover Page

Consumers were able to benefit during the 1965 fiscal year because of the services performed by USDA meat graders such as the one on this month's cover. See, *More Meat Graded at Less Cost*, on page 12.

ORVILLE L. FREEMAN  
*Secretary of Agriculture*

S. R. SMITH, Administrator  
*Consumer and Marketing Service*

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# The Forces for Change in Livestock Marketing

*By S. R. Smith, Administrator, C&MS*

*(Condensation of an address given before the 1965 Livestock Marketing Congress of the Certified Livestock Markets Association.)*

**W**ILL THE PRINCIPLE of huge-scale organization in the food business envelop livestock production and marketing?

Will livestock production and marketing be converted to integrated contracts?

Will prices of livestock be determined in the future not through a multitude of individual transactions but through mass bargaining between producers and packers?

Forces for change are as strong in the livestock industry as they are throughout the farm and food marketing system—and not all pressures for change can be opposed. It would be both unwise and futile always to hold rigid and unyielding to the status quo.

Yet it is necessary that wise direction be given to the evolutionary development of the livestock marketing system.

It is popularly supposed that a good, efficient marketing system is entirely self-selecting—that the best and most efficient will inevitably win out. But where broad forces recasting an industry and a marketing system are at work, more than that is inevitably involved.

And we must distinguish between those broad, all-encompassing issues that can be resolved only in terms of national market policy and those that effectively work themselves out as each buyer and seller makes his free choice among methods of marketing.

If it is to be national policy to preserve a system of livestock marketing built on a multitude of small units, independent and decentralized, then the principle of choice can safely be relied on to elect those methods of marketing which perform a desired service. If competition is fair, the methods that provide the most effective, the most equitable, and the most efficient marketing service will survive and grow.

It is the purpose of the Consumer and Marketing Service to enhance the working of our private, competitive marketing industry. C&MS services are designed to help make the marketing of all food and farm products more efficient, more dependable, and more

equitable to all participants than it would otherwise be.

These services may be more crucially important to the livestock industry than to any other—because, in contrast to the bigness and concentration pervading other parts of today's world of commerce, the livestock industry has remained dispersed and decentralized. There is good reason to wonder whether the kind of livestock production and marketing system we now have could be sustained for very long without supporting help from law and from government services.

Under the Packers and Stockyards Act, for example, C&MS is charged with the mandate to keep our freely competitive livestock marketing system both free and competitive—to make sure there is no monopoly, fraud, or restraint on trade.

Other C&MS services are perhaps equally important to the livestock industry. The nationwide system of market news is as essential to a truly good livestock marketing system as accurate scales and weighbills. Just as necessary is the uniform system of grades and standards that provides a common language understandable from Maine to California, and also from farm to retail store. A consistent set of grade standards extending from producer to retailer is, in fact, essential if there is to be real equity in bargaining.

During times of temporary over-supply, as in 1964, C&MS surplus removal purchases can contribute immensely to stabilizing livestock markets. The 400 million pounds of beef bought last year no doubt helped greatly to prevent total demoralization of the fed cattle market. The Plentiful Foods Program, employing the cooperative efforts of the food trade and the news media, also helped to move a lot of beef last year. Consumers ate more beef than ever before—more than 100 pounds per person.

The new Food Stamp Program is adding to demand for meat, too. By fall, the program will enable one million low-income consumers to supplement their purchases of food. These families have demonstrated that they use their expanded food purchasing power to buy, in particular, more meat and milk.

The Meat Inspection Service, which assures consumers of a wholesome and

clean product, is equally valuable to the livestock industry in facilitating trade and in building consumer confidence and demand for meat.

Many of the services and regulatory laws administered by C&MS were established in an earlier era—before the day of mass production, mass processing, mass procurement, and mass distribution. Before the profusion in marketing methods for livestock that we see now. And before the day of super-market merchandising.

These changes have not reduced the need for C&MS services. But they have made it necessary to revamp and update these services to fit the newer systems which have developed—so as to provide equal service, equal regulation, equal protection for the newer systems as well as for the older system that was prevalent when our services and regulatory laws were established.

To service livestock marketing well today, for instance, market news must be extended to more auctions. It must also reach out to country trading because so many farmers and feeders now sell directly to packers. In the same way, the protections afforded producers under the Packers and Stockyards Act must be applied to those transactions which occur outside of posted markets.

We must, and we do, constantly reassess our services and our regulations to make sure that they are fulfilling their intended purpose. To help in this reassessment, we regularly call on a number of advisory committees, comprising representatives of all segments of the farm and food industries. They meet with us to review current programs and services, suggest changes, and generally share their knowledge and viewpoints. The Packers and Stockyards Livestock Committee has been particularly valuable in advising on problems in livestock marketing.

This free exchange of information, opinion, and ideas is essential in our democratic form of government. It becomes more necessary—not less so—as our economy and our lives daily become more complex and the pace of change accelerates.

And, after all, industry and government have a common objective—not of arresting change and progress, but of fostering a viable competitive industry in which there is opportunity for all.



# U. S. WHEAT A Step Forward

*By James W. Coddington*

UNITED STATES wheat is becoming more popular with foreign buyers. That's the word from several representatives of government and the grain trade who went to wheat-buying countries this last year.

They sought first-hand reactions to the tightening of wheat standards that took place a year ago. Everywhere, they found pleased buyers—pleased that at last we have improved the quality of our export wheat.

According to these buyers, the big improvement is greater uniformity—not so much variation in the quantity of unmillable material in the wheat. The No. 2 wheat they buy one month is about the same as the No. 2 bought the month before. The wheat is cleaner—it contains less unmillable material—which means they can get more flour from it than they could last year.

The first obvious advantage of marketing a higher quality product is the significant reduction in the discounts the foreign buyers demand. True, we still have discounts, but we are moving

forward. These buyers are very slow to change—once a prejudice is formed, it is not changed overnight. Many of them, while pleased with our improved quality, have adopted a wait-and-see attitude. Eventually they will form new opinions of our wheat and when they do, these will be reflected in sales volume and by the dwindling discounts.

## What Caused Our Decline?

What's most difficult to understand is that the U.S. should have fallen behind in the first place. Why did it happen? It's simple—our wheat was dirtier and it was less uniform in baking strength than wheat from other countries. Also, it must be remembered that wheat growing areas in the U.S. are spread all across the country. As a result many different types of wheat are produced which vary greatly in quality from one area to another. With this condition it would be easy for non-uniform quality wheat to find its way into export channels.

Also, our wheat standards contain tolerances for various unmillable materials which downgrade our product abroad. Other countries, although they too have tolerances, have been able to keep them to a minimum because of their more uniform growing conditions. In some countries government inspectors stay in the elevators checking and rechecking the wheat to make sure it is completely clean and ready for export.

Foreign buyers, not knowing what quality to expect from our wheat, made precautionary price discounts to cover their "risk". Of course the International Wheat Agreement sets the high and low price boundaries making all countries relatively equal as far as price competition is concerned. But buyers on the whole chose wheat of known quality from other countries rather than take the chance on our wheat. As a result, between 1951 and 1961 the U.S. share of the world wheat dollar market fell from 35 percent to less than 19 percent.

## The Job of Rehabilitation

Something had to be done to try to regain this lost ground—somehow U.S. wheat had to be made more competitive. The U.S. Department of Agriculture's Consumer and Marketing Service, working with wheat producers and other members of the trade, set out to find a remedy. Striking right at

the Achilles heel, they devised new standards. After just one year, effects of the changes are already apparent.

The previous standards permitted more blending of wheat of various levels of quality than is possible under the current standards. Much of the initial concern over the new standards was centered around the belief that we would not be able to sell our lower quality wheat abroad on its own merits without blending it into stronger wheats. This has not been the case.

Another contention was that the new standards would force us to drop from a grade 2 wheat to a grade 3 in exports. The thinking was that since the No. 2 under the new standards is in some respects better than the No. 1 under the previous standards, that the current No. 3 would be more like the old No. 2 which made up the bulk of our previous exports. This also has not happened to any appreciable extent as sales consistently favor the grade 2.

## How Do We Stand Now?

The new standards have made our wheat more competitive in world trade, but foreign buyers would like to see us make even more refinements. At the present time our standards provide very little indication of bread baking quality. Foreign buyers would like to see us adopt some sort of index to indicate gluten content and strength in our wheat. At the present time the sedimentation test is the best known single measure of gluten strength.

When asked to compare our wheat to the wheat of other countries, foreign buyers say we still have more shrunken and broken kernels and more dust in our wheat than anyone else. In addition, they say that whereas we tolerate certain percentages of other grains in our wheat standards (corn, grain sorghums, etc.) other countries have lower tolerances—their wheat must be clean. But, by reducing these tolerances, the U.S. has taken a great step forward.

The 1964 revisions have proven their worth. They have made U.S. wheat a higher quality wheat, a wheat which is moving up in world competition. Though more quality improvements are needed, U.S. wheat even now is gaining respect throughout the world.

*(The author is chief of the Program Analysis Group, Grain Division, Consumer and Marketing Service.)*



# Protecting Your Rights Under PACA

By John J. Gardner

"That guy owes me for a load of tomatoes! He keeps promising to pay—but never comes up with the money!"

If you're a member of the produce industry—and you do much business—one day you may be reciting much the same words, because your customer has failed to meet his contract.

Possibly you already have.

In such a situation, you either have to protect your rights—or charge it off to experience.

There's a question as to how much of this sort of experience you want to buy or can afford to buy!

The vast majority of disputes in the produce business are settled on a "horse-trading" basis—each party giving a little. But, if you have a dispute that you can't settle with your customer, and you decide to protect your rights, there are two courses open to you.

You can sue in court.

But a much cheaper and speedier way is to file a complaint with the Secretary of Agriculture under the Perishable Agricultural Commodities Act. It's administered by the U.S. Department of Agriculture.

PACA is a Federal law that's tailor-made for the produce industry—passed by Congress specifically to protect the rights of those who deal in fresh produce.

It protects growers, as it does dealers, commission merchants, brokers, and shippers. It protects the small, low-income grower—who often is in the greatest need of protection—just as it does the large, prosperous firm.

PACA doesn't tell you what kind of a contract you can make with your customer. But it does tell you what your rights and responsibilities are if you do make a contract.

Under PACA, USDA's Consumer and Marketing Service—through its Fruit and Vegetable Division—is authorized to help settle certain disputes in the produce industry. C&MS has PACA field representatives at offices in Chicago, New York, Fort Worth, and Los Angeles—as well as the headquarters office at Washington, D.C.—to serve the industry.

Their job is to help you. They will handle your case so long as it meets all of these six requirements:

First, there has to be a claim for damages, because one person failed to

live up to the contract.

Second, the contract has to involve fresh or frozen fruits or vegetables.

Third, the contract must involve shipment in interstate or foreign commerce.

Fourth, your complaint has to be against a person who is licensed or subject to license under the Act. A grower who only markets his own crop isn't subject to the Act, and most retail growers aren't required to be licensed.

Fifth, a violation of the Act has to be involved. In most cases, the violation would concern the buyer's failure to pay all or part of the purchase price, the seller's failure to deliver, or the buyer's rejection of the produce without reasonable cause.

And sixth, the complaint has to be

*Acting on an informal complaint by a shipper, PACA man at top seeks the buyer's side of the story.*



filed within nine months from the time the other person failed to fulfill his obligations.

Your complaint to C&MS may be informal, like a letter or telegram giving certain basic facts—such as what you sold, to whom you shipped it, and how much he owes you. In certain emergency situations—such as a carload of produce waiting on a track at a terminal market with a threatened rejection—PACA representatives of C&MS will act on an oral complaint.

In any case, they will try to bring about a settlement on friendly terms.

They will contact the buyer to get his side of the story. They may ask you for more information, because they're trying to learn early in the game whether there's good reason to believe that every one of the six requirements has been met.

They want to make sure the evidence you rely on is factual and entitles you to recover the amount of money you claim the buyer owes you.

If the facts show he owes you the full amount, PACA representatives will advise him to pay you that amount. If their investigation shows the buyer owes you less—because of deterioration of the produce or some failure on your part to live up to the contract—they'll try to work out a settlement, again on friendly terms.

While you have rights under PACA, you also have *responsibilities*. It's up to you to prove your claim with acceptable evidence. To do this, there's no substitute for good record-keeping.

For the grower, this means keeping such records as how many crates of produce he harvested, and how many he delivered.

For the produce dealer, it means keeping such records as brokers' memos. And it means having each contract in writing, or at least sending a confirming telegram or letter if the contract is made over the telephone.

If you heed your responsibilities and know what rights you have under PACA, the law can serve as a working tool to protect you in your day-to-day produce business operations.

*(The author is Assistant Chief, Regulatory Branch, Fruit & Vegetable Div., C&MS. This article on informal complaints—which is the basis for settling most PACA disputes—will be followed soon by one on formal complaints.)*



# they like the Acceptance Service

*Restaurateur says C&MS meat service eases  
grocery shopping, reduces costs, and has all but  
ended beef "beefs".*



*Federal meat grader examines each beef cut to make sure  
it meets detailed specifications before stamping it "USDA  
Accepted as Specified." The rib is then ready to go on one*

*of "Tom Ross' Charcoal Hearths." The ten tons of beef  
eaten monthly in this and his other four restaurants is all  
certified by USDA for quality, size, weight, and fat trim.*





"... the best protection a restaurant operator can have."

According to Richmond, Va., restaurateur Tom Ross that's the U.S. Department of Agriculture's Meat Acceptance Service.

"It puts our operation on a more scientific basis," says Mr. Ross. "We're no longer buying a pig in a sack."

Just what is the Meat Acceptance Service? And what is it doing for Tom Ross?

Briefly, it's relieving him of a lot of the headaches connected with "grocery shopping" for five restaurants, it has reduced his operating costs, and it has practically eliminated customer "beefs" about beef from "Tom Ross' Charcoal Hearths."

USDA's Meat Acceptance Service is an aid to buyers for restaurants, hotels, schools, hospitals, and similar volume feeding institutions. It makes available to the volume buyer the services of a Federal meat grader who will certify that meat and meat products are in strict compliance with the purchaser's exacting specifications.

This service is provided by the more than 400 Federal meat graders of the Livestock Division of USDA's Consumer and Marketing Service. Their services are presently available in 46 of the 50 States.

To run a volume buying program most efficiently, a buyer first needs exacting specifications for products which meet his particular requirements.

To save the buyer the time and trouble of preparing specifications for each individual item needed, the Livestock Division has published a series of Institutional Meat Purchase Specifications (IMPS) covering nearly 300 fresh, cured, and processed meats and meat products. The "specs" were developed

in cooperation with major segments of both the meat buying and selling trade.

The broad range of items covered by the IMPS meets the needs of most buyers. But in those rare cases where they don't, Livestock Division technicians will gladly assist in the preparation of "custom-tailored" specifications for a particular item.

Once specifications have been adopted and made known to suppliers, bids are accepted and contracts awarded. When a supplier is ready to fill an order, he notifies the nearest office of the Livestock Division's Meat Grading Branch and a Federal meat grader is assigned to examine the proposed shipment.

Products which meet the buyer's specifications are stamped with the official "USDA Accepted As Specified" stamp. Those products which are not suited to individual stamping—ground beef or frankfurters, for instance—are packed in shipping containers which are sealed and stamped "USDA Accepted As Specified."

How does the Meat Acceptance Service work for Tom Ross?

Four of Mr. Ross' five "Charcoal Hearths"—three in Richmond and two in the Washington, D.C. area—are operated in Holiday Inn Motels. That means feeding lots of hungry tourists.

"We're now using about 10 tons of beef a month," says Mr. Ross.

That's nearly a quarter of a million pounds of beef a year! A daily—or even weekly trip to suppliers' beef coolers could be a costly and time-consuming chore. But using the meat Acceptance Service, it's a chore Mr. Ross no longer has to worry about.

The Richmond office of the Meat Grading Branch made a thorough study of Mr. Ross' beef requirements, and then suggested "specs" (IMPS) which describe the kind of beef that meets those requirements. The "specs" permit Mr. Ross to spell out not only the kind of beef cuts he wants but also the quality grade, the size and weight of the cut, and style of trim.

When suppliers are ready to make delivery, a Federal meat grader makes sure that each cut complies with every detail of the specifications. This eliminates the need for any personal inspection of the product by Mr. Ross and his staff.

"A restaurant operator can't be an expert on all the different foods he serves," observes Mr. Ross.

"We've got some good beef men, but many of the smaller operators don't have them. An operator could look at

the beef . . . it may look good to him . . . but how will it come out when it's cooked?

"We don't have to worry . . . we just leave everything to the meat graders."

The Consumer and Marketing Service is repaid for the cost of this Meat Acceptance Service. Usually the nominal costs are paid by the supplier, who may add them to the price of the beef.

The way Mr. Ross figures it, it actually saves him money.

"Sure, I pay a little more for the beef I buy. But the biggest factors in my business are yield and waste. Even though I pay a little more per pound, my beef costs me less in the long run because the specifications eliminate a lot of the waste we used to have."

And Mr. Ross reports another "plus" factor from the use of the Acceptance Service—broader competition for his business. The use of uniform and widely known specifications makes it simpler for more suppliers to bid on his contracts.

Mr. Ross figures that the Acceptance Service pays big dividends in helping him to maintain customer satisfaction, too.

"We can't afford to serve one bad steak," he says. "I don't want one dissatisfied customer."

Not all of Mr. Ross' customers are hungry tourists stopping over at the Holiday Inns—many are local area residents who come back time after time.

"Once a month, we serve the West End Businessmen's Association—400 of the top businessmen in Richmond. We have to serve 400 steaks."

Under the uniform specifications used by the meat graders who certify Mr. Ross' beef, all the steaks are alike.

"We've been serving those 400 businessmen for several months now, and there hasn't been one single complaint yet," reports Mr. Ross.

"As long as we know the beef is all right, we could even use less experienced help in the kitchen if we had to," he says.

If you'd like more information about the Meat Acceptance Service—how you might be able to make it work for you in your volume feeding operations—the Livestock Division will be glad to provide it. Address your inquiry to the Livestock Division, Consumer and Marketing Service, U.S. Department of Agriculture, Washington, D.C. 20250.

*[The use of trade names does not constitute an endorsement by the U.S. Department of Agriculture over other names not mentioned.]*







*The seed technologist above is separating weed seeds from soybeans. Sometimes, as on page 9, the only way to determine a seed's variety is to grow it.*

## THE SEED MASTERS

*How the seed technologist, a real unsung hero,  
does his job—and protects you.*

**W**HAT IS A seed technologist? Have you ever been associated with one? In most cases your answer is "no." The seed technologist, though rarely identified, is one of agriculture's most important friends—a real unsung hero.

Every crop, whether it is the farmer's corn, the cattlemen's hay, or the suburbanite's lawn—every crop starts with a seed. If the seed is good, chances are the crop will be good. If the seed is bad, the resulting crop will suffer.

How can you distinguish the good from the bad? Read the label on all agricultural and vegetable seeds.

Advertising and labeling requirements, in addition to standards of seed quality, have been established under both State and Federal authority to protect all seed buyers. Each State regulates the seed grown and marketed within its borders. The U.S. Department

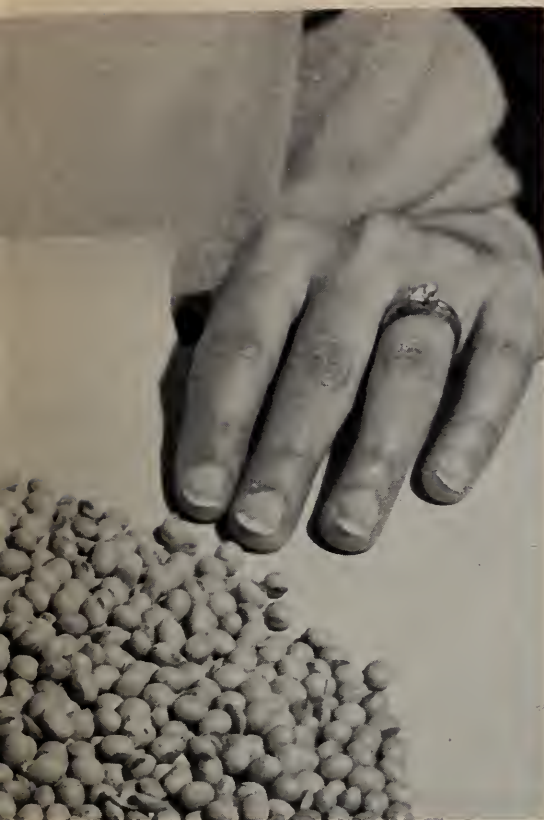
of Agriculture's Consumer and Marketing Service, through its Federal Seed Act, enforces substantially the same requirements for the seed that passes between the States, or which is offered for importation into the United States.

The focal point for effective administration of these laws lies with the seed technologist. He examines the seed to determine the information that appears on the labels of all agricultural and vegetable seed. Federal or State seed technologists then double-check the seed to make sure it has been labeled correctly.

Seed technology is a highly specialized profession—one that requires a great deal of training and experience. A good seed technologist is well versed in the botanical aspects of taxonomy, morphology, physiology and pathology.

When a sample of seed comes to him



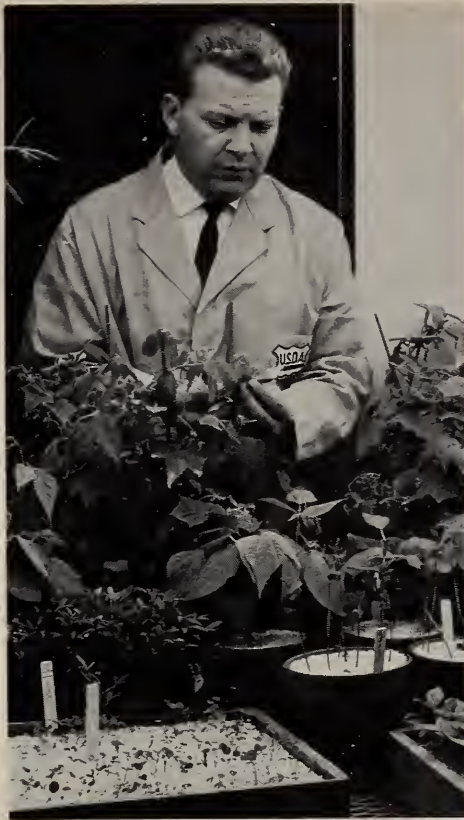


for analysis, he first determines what materials, besides the pure seed, are in the sample. Next, he tests the pure seed to determine its germination percentage. He may also have to verify the variety or determine whether the seeds have been treated with a toxic substance. It's a big job and an important one.

When you pick up a package of seed, one of the first things you should look for on the label is the purity breakdown—the percentages of all the components in the package. To determine this information the seed technologist analyzes a representative sample of seed, separating each component of the mixture according to its physical characteristics—the pure seed, the inert matter, crop seeds, common weed seeds, and the harmful noxious-weed seeds. When he has gone through the entire sample, he weighs each component and calculates its percentage of the whole mixture.

The fact that all seeds of a kind are not identical makes this task even more difficult. Differences in maturity, and variations in the milling process, among other things, can cause one seed to appear different from another even though they are of the same species. On the other hand, seeds may be very similar yet one may be a useful crop seed and the other a harmful weed seed.

After the purity analyses, the seed technologist tests the seed for germination. This is very important to seed



buyers. A package of seed may be 100 percent pure, but if its germination is low, it will not produce an adequate crop. One good way to test for germination would be to actually grow the seeds—but field planting would take too long. In the germinator, optimum growing conditions can be maintained 24 hours a day if necessary. The temperature, humidity, and lighting can be regulated to stimulate germination and growth in a much shorter period of time.

Seeds from the pure component of the purity analysis are inserted into the germinator. After the prescribed period of time, the seedlings are removed and studied to determine how many are capable of producing normal plants. On the label, the test results appear as a percentage. An 85 per cent germination means that 85 out of every 100 seeds should produce normal plants.

In some instances a bioassay test must be run on the seeds to determine if they have been treated with a toxic substance. The questionable seeds are placed on a gelatin surface which has been inoculated with spores of a fungus or bacteria which are sensitive to fungicides. Uncontrolled, these spores multiply rapidly, producing a moldy appearance around the untreated seeds. The fungicide on the treated seeds, however, seeps through the gelatin medium and inhibits the spread of the fungus creating a clear zone, or "halo."

These halos vary in size indicating the different amounts of fungicide on the individual seeds.

The Federal Seed Act requires that the variety name—in addition to the kind name—appear on the label of all vegetable seeds. The labels of agricultural seeds, however, do not have to show the variety name—but if they do, it must be correct. Once again, the best way to determine this is to actually grow the seed. But this time it may have to be grown to maturity. The growth chamber is used where possible in place of a field planting. Like the germinator, the growth chamber can duplicate most growing conditions and can induce maturity much faster than would be possible in the field. Alfalfa, for instance can be grown to bloom in the growth chamber in five weeks. In the field, an entire growing season would be required. The analyst can then examine the mature plant for color and structure in order to determine its correct variety.

Another test, the fluorescence test, is used to distinguish annual ryegrass from perennial. The technologist puts the ryegrass seeds in the germinator as if testing for germination. After 14 days the seedlings are removed and placed under an ultra-violet lamp. If the roots of the seedlings fluoresce bluish-green, they are annual, and if they don't fluoresce at all under the black light, they are perennial.

These are some of the tools and techniques of the seed technologist. These are the ways he helps make seed buying safe. In the early days of our country there was no quality inspection and the market was overrun with low quality, poorly cleaned seed. The seed technologist, working under State and Federal laws, has done much to remedy this. He has changed seed mystery into seed mastery.



*Checking soybean seeds from germinator*



# Expanding The Market For School Lunch Food

ABOUT 70,000 public and private schools in the National School Lunch Program served food valued at more than \$950 million in the 1964-65 school year. About three-fourths, or \$700 million—from Federal, State, and local funds—was spent locally to buy food from institutional suppliers, wholesalers, processors, and retailers in communities throughout the whole Nation. The remainder is accounted for by the value of food donated by the Department of Agriculture through the Consumer and Marketing Service, which administers the National School Lunch Program.

By 1975, largely because of increased school enrollments, this \$950 million demand for food is expected to grow by at least 25 percent. Thus even assuming no change in the percentage of children eating lunches at school each day, this large local market for food will become significantly larger.

However, the inevitable growth of the market for food in schools is dwarfed by a potential and virtually untapped source of growth—the exten-

sion of the feeding programs to all public schools in the U.S. and the participation of all students attending these schools.

Last year, 35.4 percent of all school children took part in the national School Lunch Program.

Federal, State and local interests are working to bring more schools and students into the program. But mere expansion of the school lunch programs merely for expansion's sake is not the ultimate goal. The U.S. Congress passed the National School Lunch Act in 1946—"to safeguard the health and well-being of the Nation's children, and to encourage the domestic consumption of nutritious agricultural commodities and other food." "The Nation's children" is interpreted to be *all* the children in the U.S.

But nonparticipating students are in schools that do not have facilities for preparing and serving lunches. These are usually the older schools located in low-income sections of large cities and the smaller, less modern ones in rural areas. But in any area of concentrated poverty, a school cannot afford a lunch program when a high percentage—sometimes a majority—of its children can pay little or nothing. Very often, these children are the very ones who need a good, nutritious lunch the most.

The problem of serving lunches in these older schools where food preparation facilities are not available may be solved in a number of ways. For urban schools, these might include a "regular" plate lunch or a bag lunch prepared in a centrally located school kitchen and transported to the individual schools. In smaller schools, in rural areas, the installation and use of simple improvised equipment (an electric hot plate or a home type stove) is often a workable solution.

Another approach for both areas is Federal assistance that can be obtained under both the Economic Opportunity Act of 1964 and the Elementary and Secondary Education Act of 1965. Both these acts help provide food services for deprived children including construction of kitchens and cafeterias.

But simply making lunches easily available will not entirely solve the problem when a preponderance of children in a given area are needy. The sale of lunches in such an area is likely to be low unless public or private welfare groups or other outside agencies assume part or all of the cost of the lunches.

USDA's contributions to schools participating in the NSLP partly relieved

the problem of the needy student. This help, given in the form of both cash and commodities, enables most schools to serve lunches costing about 50 cents for a charge of 25 to 30 cents per child. These contributions also help the schools serve about 10 percent of their total lunches to needy children free or at less than the regular selling price.

Additionally, school lunch programs in low-income areas can be strengthened through the OEO's Neighborhood Youth Corps work-study and work-training programs for youth, its work-experience programs for adults, and the Volunteers in Service to America (VISTA) or domestic peace corps. These programs can enable some school lunch managers to get full-time or part-time cafeteria workers, with much of the cost defrayed by the Federal Government.

To further help participating schools drawing attendance from areas of poor economic conditions, USDA raised the 9 cents maximum cash reimbursement per lunch, and encouraged increased food donations to the extent practicable. As a result, many eligible schools in areas of serious poverty now receive as much as 15 cents cash per lunch as well as additional amounts of USDA—donated foods.

These increased contributions, plus local initiative and ingenuity, are helping to bring lunches to rural areas where poverty has been persistent. Lunch programs have been started in hundreds of isolated one- and two-room schools where a large percentage of children can pay only a few pennies or nothing. Using hot plates and other simple equipment, teachers and parents serve the children nutritious lunches from USDA-donated food plus milk, bread, and fresh produce purchased locally. Individual school boards have also made special appropriations to buy basic equipment and local rural electric cooperatives have supplied needed electricity (see *Agricultural Marketing*, May 1964).

These and other rather dramatic efforts have brought school lunches for the first time to many thousands of children—and resultant boosts to local economies. Yet, they are hardly a start towards USDA's announced goal—a nutritious lunch each day for every child regardless of ability to pay. But the efforts nonetheless demonstrate that the school lunch program can be expanded, despite adverse conditions, if local people provide the leadership and State and Federal governments support them.



# What You Should Know About Poultry Labeling

*By Hermon I. Miller*

## A LABEL IS A TOOL.

For the consumer, it helps her decide what to buy, in what quantity and of what quality.

For the manufacturer, it helps him sell his product.

To serve as a usable tool, for both the seller and the consumer, a label must be accurate, clearly understood, and complete in detail.

That's the reason for labeling requirements of the Poultry Products Inspection Act, administered by the Poultry Division of the U.S. Department of Agriculture's Consumer and Marketing Service.

These labeling requirements apply only to federally inspected poultry and poultry products, of course, but they are similar to labeling standards accepted throughout the agricultural industry.

Labeling is only one phase of the Poultry Products Inspection Act (PPIA), which also gives C&MS the responsibility to: inspect poultry to insure wholesomeness, protect poultry and poultry products from adulteration, and assure sanitation in processing plant facilities and procedures.

These are among the consumer protection functions of the Consumer and Marketing Service. C&MS as an agency has a broad range of other responsibilities relating to the interests both of the consuming public and of the agricultural marketing apparatus of the Nation.

All poultry and poultry products inspected under the Poultry Products Inspection Act (this means all poultry moving in interstate commerce, accounting for 90 percent of the Nation's poultry) must be labeled in accordance with USDA regulations.

For all types of poultry products, the law requires the following information on all labels:

1. The common or usual name of the product.
2. The net weight or other appropriate measure of the contents.
3. The name and address of the packer and distributor.
4. The official inspection mark.
5. The number of the processing

plant in which the poultry was inspected.

6. A statement of ingredients if the product is made from two or more ingredients. This list must use the usual name of the item and must be in order of descending proportions (that is, the ingredient that weighs the most comes first, then on down to the lightest-weight item.)

Before a label may be used on inspected poultry, it must be submitted to the Poultry Products Section of the C&MS Poultry Division for approval. Experts examine the label for accuracy.

For processed poultry products (such as chicken pies, chow mein or chicken and noodles), the formula and method of manufacture must be submitted along with the label, and these are examined to insure that the product is properly labeled. Another check is made in the C&MS poultry test kitchen, where the products are cooked and tested for accuracy of the stated contents and the cooking instructions. Taste test panels are also used to insure that the product is as the label indicates.

The net weight of the product is highly important, of course, and must be shown conspicuously on the container. The actual net weight must be shown. It cannot include the weight of the package.

Labels on poultry and poultry products imported from foreign countries must follow the same rigid standards as those made in this country. Only those countries which have inspection systems and facilities similar to ours are allowed to export to the United States. These labels are also approved by C&MS.

Since processed poultry products are becoming more important to the American housewife, C&MS is giving more and more attention to this type of item. Because these products are so varied, it is impossible to develop exact regulations to cover every possible item. Therefore, C&MS has adopted numerous "guidelines" to aid in improving labels for processed poultry products.

Some of the most important are:

1. The "vignette" (picture of the product which appears on the package) must show the actual contents of the package. If the vignette shows the product as it may be served, it must be accompanied by the words "suggested serving." For example, a picture of a cooked roast on a package of uncooked turkey roast must have the words "suggested serving" close to the vignette.

2. When the cooking temperature is shown in cooking instructions, the words "fahrenheit" or "centigrade" or the letters F or C must be given also.

3. The inspection mark must be conspicuous, legible and printed on a plain background.

4. Superlatives which indicate that one product is better than any other similar product are not acceptable.

5. Wording such as "5 cents off regular price" is permissible. The words "5 cents off" are not permissible.

6. Coined names for poultry products can be used, but the common or usual name of the product must be shown just before or after the coined name.

All of these requirements are necessary in order to guarantee that the label tells accurately what is in the package. Labeling is vital to the overall image of any industry. A bad label, an erroneous or misleading one, can cause customer dissatisfaction, and give a "black eye" to the entire industry.

In C&MS we try to keep in mind our dual role of protecting the consumer and maintaining confidence in agricultural products. Our labeling requirements are designed with both these goals in mind.

*(The author is Director, Poultry Division, C&MS, USDA.)*

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*The requirements for labeling federally inspected meat and meat products closely parallel those for poultry. This label approval is done by specialists in the C&MS Meat Inspection Division.*



# CONSUMER AND MARKETING BRIEFS

## MORE MEAT GRADED AT LESS COST

Consumers were able to benefit from increased meat grading by U.S. Department of Agriculture personnel during the 1965 fiscal year. According to figures from the Livestock Division of USDA's Consumer and Marketing Service, grading of meat and acceptance of meat products amounted to nearly 12 billion pounds. This was more meat than had ever been graded and accepted during any period except for the compulsory grading during World War II and the Korean conflict.

Included in this figure were all-time highs for the grading of beef and lamb and mutton. A peacetime record 56.8 percent of the total beef produced was graded. Lamb and mutton grading rose to 53.3 percent of the total production.

USDA figures also show that while grading increased, costs for this service declined. In 1963 the cost was 6 cents per hundred pounds of meat graded. Two years later, this figure has been reduced to 4.7 cents per hundred pounds.

Meat graders were able to increase their average production per man by roughly 40 percent during the same two-year period. In 1965, an average of 14,924 pounds of meat was graded per man in one hour as compared to 10,776 pounds in 1963.

## LIVESTOCK SCALES TESTED

During fiscal 1965, a total of 12,355 tests were performed on livestock scales subject to the Packers and Stockyards Act. Of the 5,616 scales tested, 1,288—or 22.9 percent—were found to be inaccurate and in need of repair. While the Packers and Stockyards Division does not perform the actual scale testing, it supervises such work in the 46 States where there are livestock scales subject to the Packers and Stockyards Act.

## MIXED NUT STANDARDS

Consumers may soon find packages of mixed nuts in the shell labeled with the official U.S. grade markings to aid them in selective buying.

Grade standards for mixed nuts were issued by the U.S. Department of Agriculture for the first time on August 1. They are for voluntary use by the industry, to assist in packing and marketing the product.

Consumers buying packages of mixed nuts (which contain almonds, pecans, filberts, Brazil nuts, and walnuts) of the highest two grades will be assured that the mixture contains at least 10 percent, but not more than 40 percent, of each kind of nut in the mixture.

Processors who use the voluntary continuous inspection service furnished by USDA's Consumer and Marketing Service may identify retail and wholesale packages of the product with the official USDA shield-shaped grade and inspection marks, so long as the product meets the requirements of the highest two grades—U.S. Extra Fancy and U.S. Fancy—under the new standards.

Several firms, say C&MS inspection officials, plan to use the USDA continuous inspection service in processing their mixed nuts. They're being encouraged by C&MS to label their retail packages to show the grade of the contents, so consumers may have a recognizable assurance of quality.

## PLENTIFUL FOODS FOR SEPTEMBER

Top choices for September food shopping lists are grapes, frozen concentrated orange juice, turkey, peanut butter and purple sweet plums. All are expected to be in heavy supply this month, and so appear on the Consumer and Marketing Service Plentiful Foods List. This year, California expects a near record grape crop, with Thompson seedless and Flame Tokay varieties es-

pecially plentiful during September. For the first time since the citrus freeze of 1962, there are heavy supplies of frozen orange juice being marketed—in fact, this year's pack was near-record. An expected increase in the late turkey crop means there will be plenty of turkeys available this month. All signs point to a bumper crop of peanuts this year — meaning lots of peanut butter for after-school snacks. From this year's purple plum crop, Washington, Oregon and Idaho expect the largest marketings in years.

Each month USDA commodity specialists get together all available information about supplies of various foods in prospect for the next several weeks. The Plentiful Foods List is then compiled and made available to all segments of the food industry and the news media—a service to consumers, the food trades and the farmer.

## MILK BREAKS IN SCHOOLS, ETC.

Children heading back to school this month can continue their summer milk breaks right into the school year, thanks to the Consumer and Marketing Service's Special Milk Program. Schools taking part in the program can serve extra milk (in addition to that served with lunch) at reduced cost made possible by Federal reimbursement payments. Last year about 3 billion half-pints of milk were served to some 14 million youngsters under this program. The milk program is administered cooperatively by Federal, State and local governments. In some schools, students get milk for only a few pennies anytime they want it; others have scheduled milk breaks in the morning or afternoon. Nursery schools, child-care centers, settlement houses, and orphanages also serve extra milk under this program. Whenever or wherever it's served, the goal is the same—to put abundant supplies of U.S. dairy products to good use boosting the nutritional quality of our children's diets.



## NEW PEANUT MARKETING AGREEMENT

A marketing agreement regulating the quality of peanuts became effective July 12, following approval of the program by peanut handlers. The agreement establishes regulations preventing the milling or shipment of low quality peanuts into food marketing channels.

The program provides for inspecting peanuts according to quality standards—and for identifying inspected lots—to determine their acceptability for milling or shipment. Peanuts failing to meet requirements cannot be used for food. The program also provides for furnishing indemnities to handlers when they incur losses from having any of their lots rejected by buyers. An indemnification fund is financed through an assessment levied on each handler according to the volume of peanuts he handles.

An 18-member industry committee administers the program. It is composed of three producers and three handlers from each of the three major production areas—Southwest, Southeast, and Virginia-Carolina.

## THEIR EATING HABITS HAVE IMPROVED

Benefits from food donated by USDA's Consumer and Marketing Service are described in this letter from the supervisor of an Ohio county health department to the county welfare director:

"In the past few months as we visited our families and discussed with them their problems and health habits, we have noticed their eating habits have improved. Many times (they are asked about donated foods). In almost every instance the mother will say how much the extra food has helped. She makes bread from the flour. More baking of all kinds is being done. Children are eating more cooked cereal for breakfast. The commodities appear to be used wisely, which shows up in better appearance of their children as well as in weight gains. We feel this food commodity program has helped a great deal with the nutrition of our families. We hope it is not discontinued. County health nurses are greatly gratified and amazed in the response of the mothers in using the food."

# IN A FEW WORDS

"We are very keenly aware of the responsibility of the USDA to make our consumer services better known.

"We need to do a better job of letting consumers know how a dollar can be stretched . . . or how with knowledge the consumer can better protect himself.

"The right of consumers to be informed is basic to the effective exercise of their rights of economic choice and economic voice.

"Information is especially vital for that considerable part of the population which lives in poverty amid plenty—and for that larger part, which, while not impoverished, needs to budget carefully to make ends meet."

. . . Secretary of Agriculture  
Orville L. Freeman

"The marketing of farm products constantly assumes more importance because it constantly grows as a sector of our national economy and as a determinant not only of the price that farmers receive for their products but also of the cost to consumers for goods of agricultural origin. Marketing cost, much more than the price at the farm, now determines the price of food to consumers. Moreover, marketing is one of vital importance to the millions of workers and investors to whom it is a business and means of livelihood."

. . . Assistant Secretary of  
Agriculture, George L. Mehren

"As a relatively new development in the food and agriculture field, the Food Stamp Program represents a dignified and businesslike way of helping low-income families purchase more food and obtain better diets. Through utilizing the existing commercial distribution system, the benefits are spread throughout the economy—right back to the farm."

. . . Isabelle M. Kelly, Director  
Food Stamp Division, C&MS

"Farming still consists of *separate units* numbering in the millions. Whether it is to continue of that composition, and how it can best adjust to its new productiveness and bring about necessary market-orientation is the quandary today."

. . . Harold Breimyer, Economist,  
Office of the Administrator, C&MS

"The major emphasis of the U.S. Department of Agriculture is always on the widest possible use of the market place in this operation of programs to provide food assistance to children in school and to low-income families. These programs, just as the Plentiful Foods Program, have a dual purpose—to increase marketings and improve the diets of consumers."

. . . Howard P. Davis  
Deputy Administrator  
Consumer Food Programs, C&MS

"The general public has fully accepted the value and importance of the National School Lunch Program as part of the overall education program. This is demonstrated through the sound and consistent growth the program has shown over the 18 years since its inception. The teachers, administrators, school boards, civic associations, parents and local government agencies are all cooperating to support the maintenance and growth of the school lunch program.

"It has long been the belief of our Department and of the State educational officials, including local school administrators and teachers, that the school lunch program is an integral part of the total educational process. The school lunchrooms constitute additional classrooms where sound eating habits and the relation of such habits to good health are taught. This educational objective is best served when the school authorities assume the responsibility and control of the school feeding programs."

. . . Herbert D. Rorex, Director  
School Lunch Division, C&MS



A growing egg-producing area now has a completely modern plant for receiving, washing, candling, grading, and holding eggs under cool conditions.

A barbecue processor now has a State-approved plant with much improved facilities and has greatly increased his sales.

A major cooperative grain-handling plant in eastern North Carolina is being expanded and modernized so as to provide area livestock farmers with less expensive, locally grown grain of higher quality and condition than they could get before, assuring at the same time top prices to grain farmers. New "dryeration" equipment will dry corn right after harvest and continue the drying and cooling process in storage bins with high-capacity aeration equipment. Many other smaller grain elevators are also being expanded and fitted with new equipment so as to better serve local livestock producers.

These are typical examples of a Federal-State, marketing-facility engineering service which the North Carolina State Department of Agriculture is providing in cooperation with the Matching Fund Program of the U.S. Department of Agriculture. This service to improve efficiency is available on request to farmers and farm marketing and processing business firms. It has provided an important and steadily increasing stimulant for North Carolina agriculture and local community growth and stability during the past 3½ years. In some cases new jobs have been created as a result of the facilities built.

Basic floor plans, equipment layouts and product flow charts are prepared by four full-time trained and experienced specialists in the Division of Markets.

During the past year, these engineers prepared plans for 23 buildings where subsequent construction and renovating costs based on these plans topped \$1.5 million—ten grain handling and storage facilities, five egg-grading facilities, three corn mills, and five cotton gins. Besides this, numerous other marketing agencies sought and received advice on planning and construction, but did not require written plans.

Since January 1962 when this special engineering service started, 107 sets of plans have been prepared by the N. C. Division of Markets, resulting in construction costing more than \$3 million.

In times of rapid and often bewildering change such as the present, farm product handling facilities can quickly become obsolete and inadequate. Small businesses find it difficult to keep up

# MATCHING FUNDS

## *in action*

*Matching funds in North Carolina provide stimulus for plant growth and new jobs.*

*A pork barbeque business, once operated in this converted bus and the building at rear, now operates from a modern plant, the furnace of which is below.*





with new developments, and need special assistance. The aim of this program is to offer this basic help, not previously available, without going into detailed architectural drawings. It serves to focus attention on the problem and get suitable corrective work started—preventing waste of time, money and energy on inadequate improvements. The service does not compete with private firms, but actually opens up work for local businesses and new jobs to construct the new facilities, which might otherwise not have been available to them. All this is at a minimum cost to the agri-business firms directly involved.

The new plants serve as models to other farmers and businessmen in their areas, showing desirable construction and modernization features for their general use. They also stimulate other

persons to ask for special help to improve their facilities.

Among numerous examples of these special services, and their benefit to their communities, are the new egg-candling, grading and holding building of an egg marketing firm in Lillington, the new pork barbecue processing plant in Youngsville, and the new dryeration installation and increased grain storage capacity at Farmers Cooperative Exchange elevator in Lumberton.

The egg plant presents a striking contrast to its old inadequate, widely separated egg-grading and packing quarters, which had no cooling facilities of any kind. It was done at a cost much lower than the firm had expected.

The final plans prepared for the firm by the State engineering specialists were used by the builders with only a few

minor changes. The new plant can handle 1500 cases of eggs weekly, has in-plant egg-washing facilities, an egg-breaking room, and adequate cooling rooms to hold eggs before and after candling and grading. The building can also be expanded at minimum cost.

The manager is highly pleased with the ease of handling the total egg supply and with the reduction in breakage and other losses, as well as the consistent high quality of cartoned eggs it can supply buyers.

This same firm also received assistance from Division of Markets experts to plan a new seed-cleaning plant—a suitable building design plus planning equipment layout for handling both bag and bulk seed, which has also worked very satisfactorily.

The pork barbecue processing plant was a unique project for the specialists. The owner found that the old school bus in which he was preparing his product was too small and unsatisfactory for his increasing volume of business. He also wanted to meet the sanitary standards of the new State Meat Inspection Service, so he could enlarge his distribution area outside his own county.

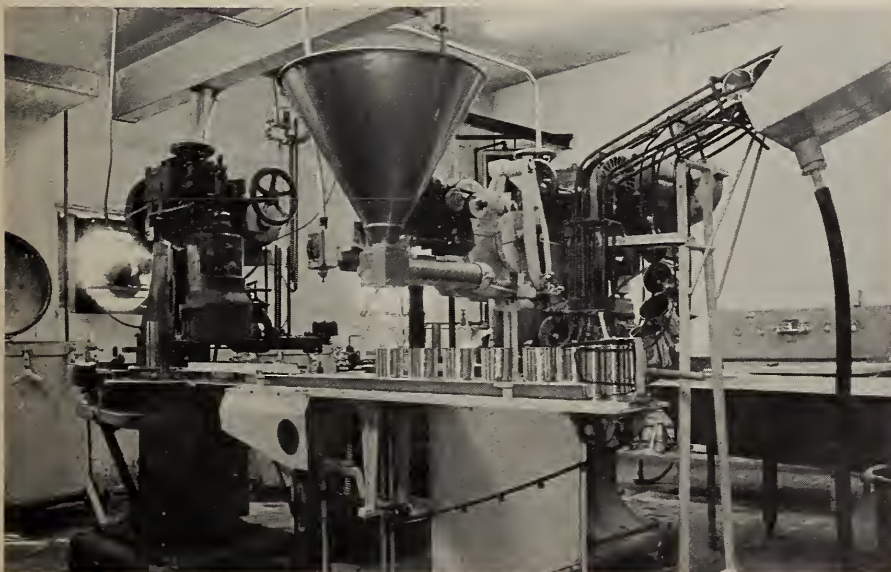
His new facilities based on these plans have proved to be excellent. They include a furnace for producing hardwood coals for cooking, a barbecue pit completely screened and equipped with a powered exhaust system, a processing room where the barbecue is chopped and packaged, a cooler for holding both the raw product and cooked product, a retail sales room and restrooms.

The assistance provided by the N. C. Department of Agriculture's grain and engineering sections to the Farmers Cooperative Exchange elevator at Lumberton will make this plant one of the most modern in the State. It will have one of the States' first "dryeration" systems.

The present storage capacity at FCX of 275,000 bushels is being expanded by 175,000 bushels—95,000 bushels of concrete storage bins and the 80,000-bushel conditioning and handling unit. A "split dumper" will unload a standard size farm truck of bulk grain in 16 seconds.

NCDA specialists prepared a detailed drawing of the existing plot showing a plan view of buildings, adjoining streets, railroads and highways. All proposed additions to the facility, including elevators, dump pit, dryer, and augers, were also located on the drawing to give maximum efficiency and ideal traffic flow pattern.

*This egg-processing plant was also aided by USDA's Matching Funds Program and N.C. So was the cannery below in which cans are filled, sealed, and cooked.*





OFFICIAL BUSINESS

# Research for Better Quality Meat

*By Louis Feinstein*

HOMEMAKERS WILL FIND it easier to select meat if U.S. Department of Agriculture marketing researchers are successful in their efforts to develop new ways to measure meat qualities that consumers want. Scientists in USDA's Agricultural Research Service are taking meat apart fiber by fiber, atom by atom, in search of meat's natural chemical constituents. Inside meat molecules may lie the secrets that will give us better guides to flavor, tenderness, and protein content.

New, more precise tests of meat quality could be used in pricing livestock much as today's grades are used for the same purpose. And, equally important to farmers and ranchers, if it turns out that flavor, tenderness, and other desirable meat qualities are inherited traits, superior strains of livestock could be bred to meet the demands of consumers' palates.

One goal of the ARS scientists is a more exact clue to beef tenderness than the animal's age or the marbled pattern of fat and lean meat in a steak. Marbling is a good indication of tenderness of meat from mature cattle (3½ to 7½ years old), according to USDA tests made in cooperation with the Oklahoma Agricultural Experiment Station. But more highly marbled meat did not indicate greater tenderness in beef from 18-month old steers. Upon examining meat from these steers in a supermarket, a homemaker, in all likelihood would downgrade the equally tender, but less highly marbled cuts.

The age of the animal when it is slaughtered is also an indication of its tenderness, of course, but its age may not be as important as we have believed. Such post-slaughter handling as hold-

ing, or aging, plays a more important role in tenderizing the meat than we have realized, according to test results with the same cattle used in the marbling tests.

The meat from younger animals was tenderized more by aging after slaughter than that from older cattle. Meat scientists have made these comparisons with steers and cows from the same ancestry, feeding, and management background to equalize as much as possible the preslaughter conditions affecting the meat quality.

In addition to beef quality tests, USDA scientists analyzed many of the same qualities in meat from hogs, in cooperation with the Wisconsin Agricultural Experiment Station. The scientists found they could count on flavorful pork chops and loin cuts if the fat content of the main back muscle was about 20 percent. A generous fat content in the loin also indicated that the hog would furnish tender bacon.

But the age and weight of the hog (lean- or fat-type animal) had no bearing on the flavor or juiciness of the bacon and commercially cured hams. Nor did the amount of marbling enhance the flavor of the hams.

Besides fat content, the color of the meat was also studied to determine its influence on qualities consumers want. The scientists found that pale or deeply colored loins, chops, and other cuts from the main back muscle were equally palatable when the weight and acidity of the meat were the same.

Protein content, a quality factor not indicated on today's meat label, is another target of the scientists' quest for better quality guides for the consumer. If fast, accurate, inexpensive tests for

protein were available, meat labels could be marked so that consumers would know which cuts were the most nutritious. Such labels could also guide shoppers to meat that would give them the highest cooking yields, as recent tests indicate that high protein content is closely linked to the cooking yield.

The study also showed that consumers would need more than a single test, such as for protein, to indicate the best qualities in meat. Tests with the Wisconsin hogs revealed no association between the protein content, good flavor, and overall hog carcass leanness.

In addition to proteins, other groups of chemicals present in meat are being studied in hopes of prying loose the secrets of meat flavor, tenderness, and other qualities. This is perhaps the hardest part of the search for better yardsticks to measure meat quality, because the testing methods, employing chemicals, heat, and other techniques, can themselves destroy or change the nature of the constituents in meat that may hold the key to a better test for meat quality.

If this research yields the hoped-for results, scientists will then use their new knowledge to develop commercially acceptable tests for meat quality. New tests may employ instruments and techniques more accurate than man's own sensory abilities in judging the tenderness, taste, odor, and appearance of meat. Details of this research will be published as results are obtained.

*(Dr. Feinstein is Assistant Chief, Field Crops and Animal Products Branch, Market Quality Division, ARS, Hyattsville, Md.)*